

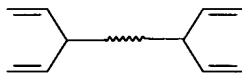
Remarks

Claims 12 - 22 are pending. Favorable reconsideration is respectfully requested.

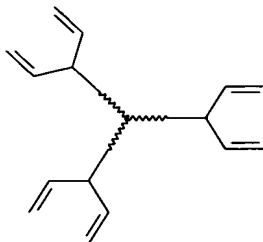
Claim 12 has been amended to eliminate branched groups V from its scope (which would be the case with the unamended claim when h is 0. The claim has also been amended to recite that it is the siloxane polymer which is branched, and not the alkenyl groups, and that the additive is liquid. The claim has also been amended to recite the positive step of “adding” the antimisting composition to the crosslinkable silicone coating composition. As a result of these amendments, withdrawal of the objection to the claims as well as the rejection under 35 U.S.C. § 112 is solicited.

Claims 12 - 22 have been rejected under 35 U.S.C. § 102(e) over Clark U.S. Patent 6,586,535 (“Clark”). Clark discloses an antimisting additive which is alkenyl-functional, but requires reacting an Si-H functional compound with minimally 2 Si-H groups (col. 2, lines 42 - 43) with a large excess of organoalkenylsiloxane containing at least 3 alkenyl groups. As can be seen, this is substantially the opposite of what Applicant does. Applicants’ alkenyl-functional polysiloxanes are required to be linear α,ω -bis[alkenyl]polysiloxanes. The difference of having two alkenyl groups rather than three or more makes a huge difference, as the use of polysiloxanes with three alkenyl groups provides additive compositions which tend to crosslink and gel to elastomers. Moreover, the structures of Clark’s resulting products (ignoring the possibility of crosslinking, which would make the Clark products still further distinct) are quite different.

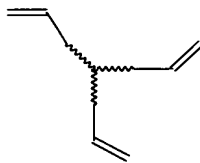
For example, when Clark employs a tris[alkenyl]- and bis[SiH]-functional silicones, his product would have the structure:



This is *Clark's* simplest additive. With a tris[SiH]-functional siloxane, *Clark's* product would be:



By contrast, with a tris[SiH]-functional siloxane and linear bis[alkenyl] siloxane, Applicants' additive would have the structure:



As can be seen, the structures are very different and there is no overlap between the claimed invention and *Clark*. The declaration of the inventor underscores that Applicants' compounds are quite different from *Clark*, and is self-explanatory. Withdrawal of the rejection of the claims over *Clark* under 35 U.S.C. § 102(e) is solicited.

The claims were made subject to an election of species requirement, which is hereby confirmed. Applicants note that the elimination of species V from the structure of the SiH-functional organosilicon compound very much narrows the number of species involved.

Claims 12 - 22 have been rejected under 35 U.S.C. § 102(e) over *Herzig et al.* U.S. Patents 6,764,717 and 6,956,096 ("*Herzig*"), having identical disclosures and related to each other as divisional applications. Applicants respectfully traverses this rejection. Applicants are entitled to a priority date of July 18, 2002, which predates the filing date of either of the two *Herzig* patents. An English language translation of the German priority

document is enclosed herewith. Moreover, Applicants have amended their claims by eliminating embodiments containing a branched hydrocarbon group V. In contrast, both *Herzig* patents specifically require such a group. Withdrawal of the rejection under 35 U.S.C. § 102(e) is solicited.

Claims 12 - 15 have been rejected under 35 U.S.C. § 102(b) or alternatively under 35 U.S.C. § 103(a) over *Inokuchi* U.S. Patent 5,527,841 ("*Inokuchi*"). Applicants respectfully traverse these rejections. The additives of the subject invention are all liquids which are miscible with the coating composition in the amounts used, as indicated on page 2, lines 19 - 24 and page 4, lines 11 - 35. In contrast, component d) of *Inokuchi* are cured rubber particles which cannot be used in coating formulations as antimisting additives. Note that *Inokuchi* describes a wide range of solid elastomers, which may contain linear or branched or cyclic alkenyl-functional silicon compounds, with terminal unsaturation, pendant unsaturation only, or both terminal and pendant unsaturation. Note also that the SiH functional may also be linear, cyclic, or branched, with SiH at the termini, along the chain, or both. The functionalities may be 2 for either component with no upper limit. Note also that in addition to these solid elastomers, elastomers formed by condensation rather than by hydrosilylation, and even ultraviolet light-induced addition polymers are also taught (col. 7, first full paragraph). The particles are formed in aqueous dispersion.

Applicants' liquid antimisting additives are prepared by specifically reacting an α,ω -bis[alkenyl]siloxane with a branched, SiH-functional siloxane, with the alkenyl compound in excess to form an alkenyl-functional product. One skilled in the art would have to make numerous selections from *Inokuchi* as far as these reactants go, selections for which *Inokuchi* provides no guide posts. However, even were one motivated to arrive at the same types of reactants, as opposed to those employed for condensation curing or photoaddition, *Inokuchi* still does not teach or suggest a liquid product. Rather, he teaches against such products by specifying that his particles, which are used for a completely different purpose, are solid cured elastomers.


The purpose behind the invention of Applicants was to lower aerosol formation in silicone coatings coated onto substrates at high speed. Such coatings are applied neat and then photocured, or cured by hydrosilylation. *Inokuchi* is not directed to lowering aerosol formation, but is directed to lubricious but abrasion resistant coatings, in particular for rubber articles, and applied from aqueous dispersion. One skilled in the art would not be motivated to look to *Inokuchi* for solving any misting problem in high speed silicone release coating.

Finally, the remaining ingredients of *Inokuchi* are not suitable for preparation of release coatings. Note that component a) is an aqueous dispersion or emulsion of a non-flowable organopolysiloxane with gel-like consistency or viscosity of at least 10^6 centistokes. Moreover, this organopolysiloxane is not curable, because the hydrocarbon groups R^1 are limited to alkyl groups and substituted alkyl groups, not alkenyl groups. Component b) is a hydrolysis/condensation polymer of an epoxy group-containing alkoxy silane, which again is for removal from the compositions employed in high speed silicone release coatings. Applicants note that the claims are not directed only to the antimisting additive, but to a coating process for coating with a crosslinkable silicone coating containing the antimisting additive. Note the comments on *Inokuchi* by Dr. Herzig. Withdrawal of the rejections over *Inokuchi* is solicited.

Claims 12 - 24 have been rejected for nonstatutory obviousness-type double patenting over U.S. 6,764,717 and 6,956,096. The latter patent requires branched hydrocarbon groups V which the present claims no longer include. Since these groups were a necessary ingredient of the '717 patent, it is believed that compositions not containing these are non-obvious. However, to expedite prosecution, enclosed is a terminal disclaimer disclaiming the term of the present application which would extend beyond the unshortened term of U.S. 6,764,717 and 6,956,096.

Applicants submit that the claims are now in condition for Allowance, and respectfully request a Notice to that effect. If the Examiner believes that further discussion will advance the prosecution of the Application, the Examiner is highly encouraged to telephone Applicants' attorney at the number given below.

Respectfully submitted,
Christian Herzig et al.

By 
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Attachments: Copy of English Translation of Priority Document
Terminal Disclaimer
Declaration of Dr. Herzig